

No. 4937. GRACE C. HILL, Danbury, Ct., U. S., (Assignee of R. A. Moore) 7th July, 1875, for 5 years: "Ironing Board." (Table à repasser le linge.)

Claim.—The combination of the platen *a*, having tension ends *a*¹, and shoulders *a*², with the springs *b*, *b*¹, and the wedge-bars *c*, *c*¹.

No. 4938. WILLARD M. FULLER and LOUIS T. LEHMEYER, New York, U. S., 7th July, 1875, for 5 years: "Railroad Car Heater." (Calorifère de voiture de railroute.)

Claim.—1st. A rail road car heater having the fire box and boiler located below the floor of the car; 2nd. The combination of the boiler *A*, having longitudinal semi-tubes *B*, *B*¹, the fire-box *C* and magazine *D*, and arranged below the floor of a car; 3rd. In combination with a car-heater arranged below the floor of the car, and provided with a magazine, the opening in the car floor with cover *K*, and the grating *J*; 4th. The combination with the heating apparatus described, of the steam-pipes *I* and *H*, and the return-pipe *L*, all arranged as set forth.

No. 4939. ADDISON H. LAFLIN, (Assignee of A. S. Lyman) New-York, U. S., 7th July, 1875, for 5 years: "Improvement in the art of Disintegrating Fibrous Substances for Paper Pulp." (Perfectionnement dans l'art de décortiquer les matières ligneuses pour la pâte à papier.)

Claim.—1st. The process described of disintegrating fibrous substances, the same consisting essentially in subjecting them while held in suspension in or mingled with water or other liquid to the percussive and tearing action of rapidly moving pickers or strikers, the resistance to the blows of which is furnished by the inertia of the material under treatment and of the medium in which it is moving; 2nd. A fibre reducing engine constructed with two vertical compartments or tanks which communicate at top and bottom, and one of which is provided with a series of pickers or strikers for the purpose described.

No. 4940. JOHN B. McDONALD, Tiverton, Ont., 7th July, 1875, for 5 years: "Improvements on Animal Pokes." (Perfectionnements aux carcans à bestiaux.)

Claim.—The Poke marked *D*, and the slats of Poke marked *E*, and the leather strap marked *B*.

No. 4941. DAVID W. DOUGLAS, Almonte, Ont., 7th July, 1875, for 5 years: "Water Filter." (Filtre à l'eau.)

Claim.—A filter composed of a chamber *A*, to be filled with filtering material, having a perforated partition *D*, central tube *F*, and connecting passage *G*.

No. 4942. JOHN H. CROWELL, Providence, R. I., U. S., 7th July, 1875, for 15 years: "Machine for Making Weavers Harness." (Machine à faire des harnais de tisserands.)

Claim.—1st. The revolving annulus *E*, furnished with the spool stands *a*, *a*¹, in combination with the spools *u*, *u*¹, for carrying the heddle twines with suitable devices, for crocheting or otherwise attaching the heddle to the side-bands of the harness, whereby the twines to form the heddles of the harness are laid in regular successive convolutions; 2nd. In combination with suitable heddle forming mechanism, the feeding rollers *z*, *z*¹, the cutter *x*, the crimper *k*, and the dies *a*, *a*¹, the same being respectively for feeding forward the wires to form the clasps for cutting the same into proper lengths, for crimping the wires to cut into rudimentary clasps, for holding the latter while the heddle-twines are inserted, and finally, for closing the clasps upon the twines; 3rd. The crimping bar *h*, *h*¹, arranged to move in vertical and horizontal planes in combination with a vertically moving cutter for crimping the wires into shape, to secure the heddle-twines, and then retracting out of the path of the devices subsequently employed to insert the heddle twines in the partially formed clasps and close the latter upon the twines; 4th. The pinchers *c*, *c*¹, in combination with the dies *a*, *a*¹, for inserting the heddle-twines into the partially formed clasps; 5th. The oscillating pincher *c*, in combination with the leese rod *S*, for selecting the leese of the harness.

No. 4943. JOHN M. GROVER, Brockville, Ont., 7th July, 1875, for 5 years: "Combined Extension Quilting and Clothes Drying Table." (Séchoir et métier à piquer à rallonge combinés.)

Claim.—1st. An extension table having a removable top *M*, hinged to its frame, whereby it may be thrown over or under the frame; 2nd. Constructing the table with a removable side *b*, attached to auxiliary legs, whereby the extension of the table can be affected; 3rd. Constructing the table with extension frames *c*, having legs *c*, hinged respectively to the frame *A*, of the table and auxiliary extension frame *b*, and folding to coincide therewith; 4th. The hinged bar *K*, in combination with the auxiliary frame *b*, and main frame *A*; 5th. Providing the fixed and extension frames *A*, *b*, with pins *J*, sunk into the edges to secure the quilt; 6th. The roller bar *H* and bar *g*, in combination with the frame *A*; 7th. The manner of securing the roller *H*, in the frame removably by a hook *f*, on the frame *c*, engaging with a peripheral groove in the journals.

No. 4944. JAMES MARTIN, Jr., Toronto, Ont., 7th July, 1875, for 5 years: "Application of a direct action Engine to a Brick Machine." (Application d'une machine à action directe à une machine à brique.)

Claim.—The combination of the steam engine cylinder *B*, spur wheel *L*, spur pinion *H*, bevel pinion *K*, and bevel wheel *L*, or their equivalents with the pug mill shaft *M*.

No. 4945. RUSSELL PICKEL, and JAMES LEET, Plattsburg, N. Y., U. S., 7th July, 1875, for 5 years: "Railway Switch." (Aiguille de railroute.)

Claim.—In a railway switch *A*, the rails *B*, and *C*, of which are laid on movable sleepers *D*, *E*, *G*, having its middle rail *F*, pivoted at its centre *L*, and the stoppers *N*, in combination with an auxiliary switch *P*.

No. 4946. DAN PEASE, Floyd, N. Y., U. S., 7th July, 1875, for 5 years: "Machine for Cleaning Buckwheat." (Machine à nettoyer le sarrasin.)

Claim.—1st. The outer cylinder of a buckwheat cleaner composed of the notched pivoted bars or links *H*, and spirally grooved plates or staves *J*; 2nd. The combination of the double inclined plane *S*, with the bars or ribs *f*, the flues *E*, *E*¹, *E*², *E*³, and fan and chamber, for conveying off the dirt from the grain.

No. 4947. PARKER C. MARSH, Northampton, Mass., U. S., 7th July, 1875, for 5 years: "Improvement in Reefing Sails." (Perfectionnement dans la méthode de prendre des ris dans les voiles.)

Claim.—1st. In combination with the boom of a fore or aft sail the application and arrangement of worm gear *J*, and endless screw *J*¹, with handle *O*, for revolving the boom *D*, for reefing fore and aft sails; 2nd. In combination with the jaws *L*, and boom *D*, the axle or wrist pin *Q*, fastened by pin *K*, for connecting the said parts; 3rd. In combination with the boom *D*, the shouldered collar *a*, provided with friction rollers *c*, *c*¹, *c*², for the boom iron *I*, to revolve upon; 4th. In combination with the boom *D*, and collar *a*, the boom iron *I*, provided with projections *b*, *b*¹, bail *f*, and circular traveller *g*; 5th. In combination with a fore and aft sail the application of a sliding apron *E*; 6th. In combination with mast hoops *G*, and fore and aft sails the arrangement of *f*, *f*¹, *f*², *f*³, *f*⁴, *f*⁵, *f*⁶, *f*⁷, *f*⁸, *f*⁹, *f*¹⁰, *f*¹¹, *f*¹², *f*¹³, *f*¹⁴, *f*¹⁵, *f*¹⁶, *f*¹⁷, *f*¹⁸, *f*¹⁹, *f*²⁰, *f*²¹, *f*²², *f*²³, *f*²⁴, *f*²⁵, *f*²⁶, *f*²⁷, *f*²⁸, *f*²⁹, *f*³⁰, *f*³¹, *f*³², *f*³³, *f*³⁴, *f*³⁵, *f*³⁶, *f*³⁷, *f*³⁸, *f*³⁹, *f*⁴⁰, *f*⁴¹, *f*⁴², *f*⁴³, *f*⁴⁴, *f*⁴⁵, *f*⁴⁶, *f*⁴⁷, *f*⁴⁸, *f*⁴⁹, *f*⁵⁰, *f*⁵¹, *f*⁵², *f*⁵³, *f*⁵⁴, *f*⁵⁵, *f*⁵⁶, *f*⁵⁷, *f*⁵⁸, *f*⁵⁹, *f*⁶⁰, *f*⁶¹, *f*⁶², *f*⁶³, *f*⁶⁴, *f*⁶⁵, *f*⁶⁶, *f*⁶⁷, *f*⁶⁸, *f*⁶⁹, *f*⁷⁰, *f*⁷¹, *f*⁷², *f*⁷³, *f*⁷⁴, *f*⁷⁵, *f*⁷⁶, *f*⁷⁷, *f*⁷⁸, *f*⁷⁹, *f*⁸⁰, *f*⁸¹, *f*⁸², *f*⁸³, *f*⁸⁴, *f*⁸⁵, *f*⁸⁶, *f*⁸⁷, *f*⁸⁸, *f*⁸⁹, *f*⁹⁰, *f*⁹¹, *f*⁹², *f*⁹³, *f*⁹⁴, *f*⁹⁵, *f*⁹⁶, *f*⁹⁷, *f*⁹⁸, *f*⁹⁹, *f*¹⁰⁰, *f*¹⁰¹, *f*¹⁰², *f*¹⁰³, *f*¹⁰⁴, *f*¹⁰⁵, *f*¹⁰⁶, *f*¹⁰⁷, *f*¹⁰⁸, *f*¹⁰⁹, *f*¹¹⁰, *f*¹¹¹, *f*¹¹², *f*¹¹³, *f*¹¹⁴, *f*¹¹⁵, *f*¹¹⁶, *f*¹¹⁷, *f*¹¹⁸, *f*¹¹⁹, *f*¹²⁰, *f*¹²¹, *f*¹²², *f*¹²³, *f*¹²⁴, *f*¹²⁵, *f*¹²⁶, *f*¹²⁷, *f*¹²⁸, 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